ROUTING AND RECORD SHEET

SUBJECT: (Optional)
Engineering Model of Key Proposed for Use with the [redacted]
Submission for Evaluatory Comment

50X1

FROM:
Chief, Engineering Staff, OC
2815 Alcott Hall

NO.
ENG-M 60-

DATE

TO: (Officer designation, room number, and building)	DATE RECEIVED	DATE FORWARDED	OFFICER'S INITIALS	COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)
1. ~~Chief, OC-TTT 2402 "I" Building~~				Never forwarded.
2.				[redacted] keyboard came in smaller, + with more positive feel than original KE.9. //
3.				
4.				
5. R+D Lab				
6. Design	8/90			What about reliability?
7. M. Fab.				
8.				
9. [redacted]				
10.				Design — Do you want this?
11.				
12.				
13.				
14.				
15.				

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FORM 1 DEC 56 610 USE PREVIOUS EDITIONS

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ENG M

TO : Chief, Telecommunications, Training & Techniques Staff, OC
DATE:

ATTN : [redacted] 50X1

FROM : Chief, Engineering Staff, OC

SUBJECT: Engineering Model of Key Proposed for Use with the [redacted] -- 50X1
Submission for Evaluatory Comment

1. A major objection that has been voiced to the [redacted] version 50X1
of the Electronic Keyer is that the keyboard keys are "dead" with respect to "feel", travel, or action. The time required for development of the electronic functions of the [redacted] did not permit an 50X1
exhaustive study of this problem within the requirement deadline. However, since initiation of the off-line keyer program, considerable thought has been given to the problem. An engineering model of a key has now been worked up which should eliminate many of the objections to the [redacted] Key. A sample of this key will be forwarded 50X1
to your office for evaluatory comment.

2. The key submitted is intended to demonstrate the mechanical action or "feel" only -- thus the single button. A twelve-button keyboard -- 10 digits, space and error -- including the "typing cores" and circuit interconnections can be constructed in dimensions which approximate 3 5/8" x 2" x 1/4". The twelve-button keyboard will be constructed for the first prototype of the off-line keyer. However, a full keyboard (29 keys) would have the approximate dimensions 8 1/8" x 3 1/16" x 1/4" which would also include the "typing cores" and interconnections.

3. The keyer submitted has only three moving parts -- the combined button and rocker arm, the copper-beryllium "snap strip" and the key contactor which involves only a very slight flexture of the diaphragm. This model has been subjected to 10,000 depressions without malfunction. The mechanical tolerances on this model have not been held as close as they probably will be in the production prototype; therefore, the unit has been sealed to maintain the relative positions of the parts. Reassembly of this model may prove tedious thus it is suggested that it not be taken apart -- at least until after any evaluation of the unit is complete.

4. An engineering model of the full keyboard will be constructed for use in functionally checking the storage unit for "all character" operation. However, as previously stated, the abbreviated keyboard will be constructed for the prototype unit. Circuitwise the breadboard

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of the [redacted] is nearing completion. Problems still exist in threading matrices because of shorts caused by insulation punctures by sharp edges and metallic burrs. A means of circumventing this difficulty is now being sought. Upon solution of this problem, testing of a limited capacity breadboard storage unit can begin. 50X1

5. Your comments on the key submitted are invited at the earliest convenient date.

[redacted] 50X1